Application No.: 09/888,332
Amendment dated May 23, 2005
Reply to Office Action of December 22, 2004

## Remarks/Arguments

Claims 1-29 are in the application. Claims 1 and 22 are in independent form.

Claims 1-25 stand rejected under 35 USC 102 as anticipated by U.S. Pat. Publication 20040107125 of Guheen et al. ("Guheen"). Applicants respond as follows.

Guheen teaches a method of identifying alliances among a plurality of businesses. (Abstract). The system of Guheen is implemented using object oriented programming. Guheen describes object oriented programming at length in paragraphs [0150] to [0183]. Whereas Guheen describes an object oriented system for creating complex computer programs -- applicants' claimed invention is a system for designing reusable integrated circuit components and reusing those components. While designing integrated circuits involves some programming, it also involves a multitude of activities, each of which can generate various types of files, many of which do not interact like programming files in an object-oriented programming environment.

For example, a designer may create a behavioral description of an integrated circuit, and then write a register transfer level ("RTL") description in a hardware description language to describe structure for carrying out the behavior. The RTL description is operated on by a synthesis program that converts the RTL code to a set of registers and combinational logic. The synthesis is constrained by constraints specified by the designer in a constraint file. After a network of logic gates and registers are defined, the gates and registers can be converted to a physical layout, and then connections are routed between the physical elements. The designed circuit is then simulated, and test vectors are created to test that the desired output is produced from a specified input. The description above is simplified, and many different or additional steps may be used, generating various files. Any of these steps may generate "design files" that are "deliverables" in applicants' system.

While object oriented programming as described in Guleen is well known, the system for designing integrated circuits from reusable components in claims 1-28 is novel. The various objects in an objected oriented program environment are all software programs that interact; the various objects in the integrated design system of claims 1-28, such as netlists, RTL code, synthesis constraints, do not necessarily interact with each other in the manner of software

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programs. Thus, there is no incentive to modify the object-oriented program of Guleen to produce the claimed system, because the claimed system can include a variety of design files, and not just executable computer program files. Because of the differences between the various types of design files and conventional program files, applicants submit that the claimed invention would not have been obvious over known object oriented programming methods, such as those described in Guleen.

The amended claims differentiate over conventional object oriented programming of Guleen. Amended 1 recites "multiple component type definitions corresponding to different types of reusable integrated circuit design components." Amended claim 22 recites "defining a first integrated circuit design component type."

New claims 26-29 further differentiate over Guleen.

Applicants submit that all claims are now allowable and respectfully requests reconsideration and allowance of the application.

Respectfully submitted,

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